

CHAPTER 15 FLOOD DAMAGE PREVENTION¹

ARTICLE 15-1 PURPOSE

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Section 15-1-1 Findings of Fact

- A. The flood hazard areas of the City of Maricopa are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.
- B. These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities, and, when inadequately anchored, damage uses in other areas. Uses that are inadequately floodproofed, elevated or otherwise protected from flood damage also contribute to the flood loss.

Section 15-1-2 Statement of Purpose

It is the purpose of this chapter to promote the public health, safety and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- A. Protect human life and health.
- B. Minimize expenditure of public money for costly flood control projects.
- C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public.
- D. Minimize prolonged business interruptions.
- E. Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard.
- F. Help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas.
- G. Insure that potential buyers are notified that property is in an area of special flood hazard.
- H. Insure that those who occupy the areas of special flood hazard assume responsibility for their actions.

- I. Maintain eligibility for state disaster relief.

Section 15-1-3 Methods of Reducing Flood Losses

In order to accomplish its purposes, this chapter includes methods and provisions for:

- A. Restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities.
- B. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction.
- C. Controlling the alteration of natural floodplains, stream channels and natural protective barriers, which help accommodate or channel flood waters.
- D. Controlling filling, grading, dredging and other development which may increase flood damage.
- E. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

ARTICLE 15-2 DEFINITIONS

In this chapter, unless the context otherwise requires:

- A. "Appeal" means a request for a review of the floodplain administrator's interpretation of any provision of this chapter or a request for a variance.
- B. "Area of shallow flooding" means a designated AO Zone on the Flood Insurance Rate Map (FIRM). The base flood depths range from one to three feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate and velocity flow may be evident.
- C. "Base flood" means the flood having a one percent chance of being equaled or exceeded in any given year.
- D. "Breakaway wall" means a wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces, without causing damage to the elevated portion of the building supporting foundation system.
- E. "Critical feature" means an integral and readily identifiable part of a flood protection system without which the flood protection provided by the entire system would be compromised.
- F. "Development" means any man-made change to improved or unimproved real estate including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations located within the area of special flood hazard.

- G. "Financial assistance" means any form of loan, grant, guaranty, insurance, payment, rebate, subsidy, disaster assistance loan or grant, or any other form of direct or indirect federal assistance, other than general or special revenue sharing or formula grants made to states.
- H. "Flood" or "flooding" means a general and temporary condition of partial or complete inundation of normally dry land areas from:
1. The overflow of flood waters.
 2. The unusual and rapid accumulation or runoff of surface waters from any source, or
 3. The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in this definition.
- I. "Flood Boundary Floodway Map" means the official map on which the Federal Insurance Administration has delineated both the areas of flood hazard and the floodway.
- J. "Flood Insurance Rate Map" (FIRM) means the official map on which the Federal Insurance Administration has delineated both the areas of special flood hazard and the risk premium zones applicable to the community.
- K. "Flood Insurance Study" means the official report provided by the Federal Insurance Administration that includes flood profiles, the FIRM, the Flood Boundary Floodway Map and the water surface elevation of the base flood.
- L. "Floodplain or flood-prone area" means any land area susceptible to being inundated by water from any source (see definition of "flooding").
- M. "Floodplain administrator" means the city manager, or his designee, who is hereby authorized by the floodplain board to administer the provisions of this chapter.
- N. "Floodplain board" means the city council of the City of Maricopa at such times as they are engaged in the enforcement of this chapter.
- O. "Floodplain management" means the operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works and floodplain management regulations.
- P. "Floodplain management regulations" means zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as floodplain ordinance, grading ordinance and erosion control ordinance) and other applications of police power. The term describes such state or local regulations in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.
- Q. "Flood proofing" means any combination of structural and non-structural additions, changes or adjustments to structures which reduce or eliminate flood damage to real

estate or improved real property, water and sanitary facilities, structures and their contents.

- R. "Flood protection system" means those physical structural works for which funds have been authorized, appropriated and expended and which have been constructed specifically to modify flooding in order to reduce the extent of the area within a community subject to a "special flood hazard" and the extent of the depths of associated flooding. Such a system typically includes dams, reservoirs, levees or dikes. These specialized flood modifying works are those constructed in conformance with sound engineering standards.
- S. "Flood-related erosion" means the collapse or subsidence of land along the shore of a lake or other body of water as a result of undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as a flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding.
- T. "Floodway" means the channel of a river or other watercourse and the adjacent land areas necessary in order to discharge the one hundred-year flood without cumulatively increasing the water surface elevation.
- U. "Functionally dependent use" means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.
- V. "Highest adjacent grade" means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.
- W. "Levee" means a man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control or divert the flow of water so as to provide protection from temporary flooding.
- X. "Levee system" means a flood protection system which consists of a levee and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices.
- Y. "Lowest floor" means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided, that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this chapter.
- Z. "Manufactured home" means a structure, transportable in one or more sections, which is built on a permanent chassis and designed for use with or without a permanent foundation when connected to the required utilities. For floodplain management purposes, the term "manufactured home" also includes mobile homes as defined in the city's zoning ordinance, park trailers, travel trailers and other similar vehicles placed on a site for greater than 180 consecutive days.
- AA. "Manufactured home park or subdivision" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for sale or rent.

- BB. "Mean sea level" means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced.
- CC. "New construction" means, for floodplain management purposes, structures for which the "start of construction" commenced on or after July 9, 1984.
- DD. "Person" means any individual or his agent, firm, partnership, association, corporation or agent of the aforementioned groups or this state or its agencies or political subdivisions.
- EE. "Program" means the National Flood Insurance Program authorized by 42 U.S.C. 4001-4128.
- FF. "Program deficiency" means a defect in a community's floodplain management regulations or administrative procedures that impairs effective implementation of those floodplain management regulations or of the NFIP standards.
- GG. "Regulatory flood elevation" means an elevation one foot above the base flood elevation.
- HH. "Remedy a violation" means to bring the structure or other development into compliance with state or local floodplain management regulations or, if this is not possible, to reduce the impacts of its noncompliance. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of this chapter or otherwise deterring future similar violations, or reducing federal financial exposure with regard to the structure or other development.
- II. "Riverine" means relating to, formed by or resembling a river (including tributaries), stream, brook, etc.
- JJ. "Special flood hazard area" means an area having special flood or flood-related erosion hazards, and shown on an FHBM or FIRM as Zone A, AO, A1-30, AE, A99 or AH.
- KK. "Start of construction" means substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets or walkways; nor does it include excavation for a basement, footings, piers or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure.
- LL. "Structure" means a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.
- MM. "Substantial improvement" means any repair, reconstruction or improvement of a structure, the cost of which equals or exceeds fifty percent of the market value of the structure either:
1. Before the improvement or repair is started, or

2. If the structure has been damaged and is being restored, before the damage occurred.

For the purposes of this definition "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however, include either:

1. Any project for improvement of a structure to comply with existing state or local health, sanitary or safety code specifications which are solely necessary to assure safe living conditions, or
2. Any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.

NN. "Variance" means a grant of relief from the requirements of this chapter which permits construction in a manner that would otherwise be prohibited by this chapter.

OO. "Violation" means the failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certifications or other evidence of compliance required in this chapter is presumed to be in violation until such time as that documentation is provided.

ARTICLE 15-3 GENERAL PROVISIONS

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Section 15-3-1 Application of Chapter

This chapter shall apply to all areas of special flood hazards within the corporate limits of the City of Maricopa.

Section 15-3-2 Establishment of Special Flood Hazard Areas

The areas of special flood hazard as identified by the Federal Insurance Administration as set forth on Panel 040077 0450 D of the effective Flood Insurance Rate Map for the unincorporated areas of Pinal County, Arizona, dated May 4, 1987, with an accompanying Flood Insurance Rate Map, all as applied to the incorporated limits of the City of Maricopa, is hereby adopted by

reference and declared to be a part of this chapter. A copy of the flood insurance map shall be on file at city hall. The Flood Insurance Study and maps adopted by reference herein is the minimum area of applicability of this chapter and may be supplemented by studies for other areas which allow implementation of this chapter and which are recommended to the floodplain board by the floodplain administrator.

Section 15-3-3 Compliance

No structure or land shall hereafter be constructed, located, extended, converted or altered without full compliance with the terms of this chapter and other applicable regulations.

Section 15-3-4 Abrogation and Greater Restrictions

This chapter is not intended to repeal, abrogate or impair any existing easements, covenants or deed restrictions. However, where this chapter and another provision of this code, or an ordinance, easement, covenant or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

Section 15-3-5 Interpretation

In the interpretation and application of this chapter, all provisions shall be:

- A. Considered as minimum requirements;
- B. Liberally construed in favor of the governing body; and,
- C. Deemed neither to limit nor repeal any other powers granted under state statutes.

Section 15-3-6 Warning and Disclaimer of Liability

The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This chapter does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the city, any officer or employee thereof or the Federal Insurance Administration for any flood damages that result from reliance on this chapter or any administrative decision lawfully made thereunder.

Section 15-3-7 Statutory Exemptions

- A. In accordance with Arizona Revised Statutes, Section 48-3609, nothing in this chapter shall:
 - 1. Affect existing uses of property or the right to continuation of the use under conditions which existed on April 13, 1987.
 - 2. Affect repair or alteration of property for the purposes for which such property was used on April 13, 1987; providing such repair or alteration does not exceed

50 percent of the value of the property prior to the repair or alteration; and provided the repair or alteration does not decrease the carrying capacity of the watercourse.

3. Affect or apply to facilities constructed or installed pursuant to a certificate of environmental compatibility issued under the authority of Title 40, Chapter 2, Article 6.2, Arizona Revised Statutes.
- B. In accordance with Arizona Revised Statutes Section 48-3613, written authorization shall not be required, nor shall the floodplain board prohibit:
1. The construction of bridges, culverts, dikes and other structures necessary to the construction of public highways, roads and streets intersecting a watercourse.
 2. The construction of storage dams for watering livestock or wildlife, structures on banks of a creek, stream, river, wash, arroyo or other watercourse to prevent erosion of or damage to adjoining land, or dams for the conservation of flood waters as permitted by Title 48, Chapter 21, Arizona Revised Statutes.
 3. Construction of tailing dams and waste disposal areas for use in connection with mining and metallurgical operations. This paragraph does not exempt those sand and gravel operations which will divert, retard or obstruct the flow of waters in any watercourse.
 4. Any flood control district, or other political subdivision, from exercising powers granted to it under Title 45, Chapter 10, Arizona Revised Statutes.
- C. Before any construction authorized by subsection B of this section may begin, the responsible person must submit plans for the construction to the floodplain board for review and comment.
- D. These exemptions do not preclude any person from liability if that person's actions increase flood hazards to any other person or property.

Section 15-3-8 Declaration of Public Nuisance

Every new structure, building, fill, excavation or development located or maintained within any area of special flood hazard after August 8, 1973 in violation of this chapter is a public nuisance per se.

Section 15-3-9 Abatement of Violations

Within thirty days of discovery of a violation of this chapter, the floodplain administrator shall submit a report to the floodplain board which shall include all information available to the floodplain administrator which is pertinent to said violation. Within thirty days of receipt of this report, the floodplain board shall either:

- A. Take any necessary action to effect the abatement of such violation; or
- B. Issue a variance to this chapter in accordance with the provisions of article 15-6; or

- C. Order the owner of the property upon which the violation exists to provide whatever additional information may be required for their determination. Such information must be provided to the floodplain administrator within thirty days of such order, and he shall submit an amended report to the floodplain board within twenty days. At their next regularly scheduled public meeting, the floodplain board shall either order the abatement of said violation or they shall grant a variance in accordance with the provisions of article 15-6.
- D. Submit to the administrator of Federal Insurance Administration a declaration for denial of insurance, stating that the property is in violation of a cited state or local law, regulation or ordinance, pursuant to section 1316 of the National Flood Insurance Act of 1968 as amended.

Section 15-3-10 Unlawful Acts

- A. It is unlawful for any person to divert, retard or obstruct the flow of waters in any watercourse whenever it creates a hazard to life or property without securing the written authorization of the floodplain board.
- B. Any person violating the provisions of this section shall be guilty of a class one (1) misdemeanor, punishable as set forth in this code and state law.

ARTICLE 15-4 ADMINISTRATION

- 15-4-1 Establishment of Development Permit
- 15-4-2 Duties and Responsibilities of the Floodplain Administrator

Section 15-4-1 Establishment of Development Permit

- A. A development permit shall be obtained before construction or development begins within any area of special flood hazard established in section 15-3-2. Application for a development permit shall be made on forms furnished by the floodplain administrator and may include, but not be limited to: plans in duplicate drawn to scale showing the nature, location, dimensions and elevation of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities and the location of the foregoing.
- B. Specifically, the following information is required:
 - 1. Proposed elevation in relation to mean sea level of the lowest habitable floor (including basement) of all structures; in Zone AO elevation of existing grade and proposed elevation of lowest habitable floor of all structures.
 - 2. Proposed elevation in relation to mean sea level to which any structure will be floodproofed.
 - 3. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in section 15-5-1(C)(3).
 - 4. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

Section 15-4-2 Duties and Responsibilities of the Floodplain Administrator

Duties of the floodplain administrator shall include, but not be limited to:

- A. Permit Review. Review all development permits to determine that:
 - 1. The permit requirements of this chapter have been satisfied.
 - 2. All other required state and federal permits have been obtained.
 - 3. The site is reasonably safe from flooding.
 - 4. The proposed development does not adversely affect the carrying capacity of the floodway. For purposes of this chapter, "adversely affects" means that the cumulative effect of the proposed development when combined with all other existing and anticipated development will not increase the water surface elevation of the base flood more than one foot at any point.
- B. Use of Other Base Flood Data. When base flood elevation data has not been provided in accordance with section 15-3-2, the floodplain administrator shall obtain, review and reasonably utilize any base flood elevation data available from a federal, state or other source, in order to administer article 15-5. Any such information shall be submitted to the floodplain board for adoption.
- C. Information to be Obtained and Maintained. Obtain and maintain for public inspection and make available as needed for flood insurance policies:
 - 1. The certified elevation required in section 15-5-1(C)(1).
 - 2. The certification required in section 15-5-1(C)(2).
 - 3. The floodproofing certification required in section 15-5-1(C)(3).
 - 4. The certified elevation required in section 15-5-4(B).
- D. Alteration of Watercourses. Whenever a watercourse is to be altered or relocated:
 - 1. Notify adjacent communities and the Arizona Department of Water Resources prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.
 - 2. Require that the flood carrying capacity of the altered or relocated portion of said watercourse is maintained.
- E. Delineation of Floodplains Affected. Within one hundred twenty days after completion of construction of any flood control protective works which changes the rate of flow during the flood or the configuration of the floodplain upstream or downstream from or adjacent to the project, the person or agency responsible for installation of the project shall provide to the governing bodies of all jurisdictions affected by the project a new delineation of all floodplains affected by the project. The new delineation shall be done according to the criteria adopted by the director of water resources.

- F. Written Notice of Development Plan. Advise the flood control district of Pinal County and any adjunct jurisdiction having responsibility for floodplain management in writing and provide a copy of the development plan of all applications for floodplain use permits or variances to develop land in a floodplain or floodway within one mile of the corporate limits of the City of Maricopa. Also, advise the Flood Control District of Pinal County in writing and provide a copy of any development plan of any major development proposed within a floodplain or floodway which could affect floodplains, floodways or watercourses within the district's area of jurisdiction. Written notice and a copy of the plan of development shall be sent to the district no later than three working days after having been received by the city.
- G. Interpretation of FIRM Boundaries. Make interpretations where needed, as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in article 15-6.
- H. Actions on Violations. Take actions on violations of this chapter as required in section 15-3-9.

ARTICLE 15-5 PROVISIONS FOR FLOOD HAZARD REDUCTION

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| 15-5-1 | Standards of Construction |
| 15-5-2 | Standards for Storage of Materials and Equipment |
| 15-5-3 | Standards for Utilities |
| 15-5-4 | Standards for Subdivisions |
| 15-5-5 | Standards for Mobile Home Parks and Subdivisions |
| 15-5-6 | Floodways |

Section 15-5-1 Standards of Construction

In all areas of special flood hazards the following standards are required:

- A. Anchoring
1. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure.
 2. All manufactured homes shall meet the anchoring standards of section 15 -5-5(A).
- B. Construction Materials and Methods
1. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
 2. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.
- C. Elevation and Floodproofing

1. New construction and substantial improvement of any structure shall have the lowest floor, including basement, elevated to or above the regulatory flood elevation. Nonresidential structures may meet the standards in paragraph 3 of this subsection. Upon the completion of the structure, the elevation of the lowest floor including basement shall be certified by a registered professional engineer or surveyor and provided to the floodplain administrator.
2. New construction and substantial improvement of any structure in Zone AO shall have the lowest floor, including basement, higher than the highest adjacent grade at least one foot higher than the depth number on the FIRM, or at least two feet if no depth number is specified. Nonresidential structures may meet the standards in paragraph 3 of this subsection. Upon completion of the structure, a registered professional engineer shall certify to the floodplain administrator that the elevation of the structure meets this standard.
3. Nonresidential construction shall either be elevated in conformance with paragraphs 1 or 2 of this subsection or together with attendant utility and sanitary facilities:
 - a. Be floodproofed so that below the regulatory flood level the structure is watertight with walls substantially impermeable to the passage of water;
 - b. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and
 - c. Be certified by a registered professional engineer or architect that the standards of this subsection are satisfied. Such certifications shall be provided to the floodplain administrator.
4. Require, for all new construction and substantial improvements, require that fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect to meet or exceed the following minimum criteria:
 - a. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.
 - b. The bottom of all openings shall be no higher than one foot above grade.
 - c. Openings may be equipped with screens, louvers, valves or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
5. Manufactured homes shall meet the above standards and also the standards in section 15-5-5.

Section 15-5-2 Standards for Storage of Materials and Equipment

- A. The storage or processing of materials that are in time of flooding buoyant, flammable, explosive, or could be injurious to human, animal or plant life are prohibited.

- B. Storage of other material or equipment may be allowed if not subject to major damage by floods and if firmly anchored to prevent flotation or if readily removable from the area within the time available after flood warning.

Section 15-5-3 Standards for Utilities

- A. All new and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system and discharge from systems into flood waters.
- B. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.
- C. Waste disposal systems shall not be installed wholly or partially in a floodway.

Section 15-5-4 Standards for Subdivisions

- A. All preliminary subdivision proposals shall identify the flood hazard area and the elevation of the base flood.
- B. All final subdivision plans will provide the elevation of proposed structures and pads. If the site is filled above the base flood, the final pad elevation shall be certified by a registered professional engineer or surveyor and provided to the floodplain administrator.
- C. All subdivision proposals shall be consistent with the need to minimize flood damage. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage. All subdivisions shall provide adequate drainage to reduce exposure to flood hazards.

Section 15-5-5 Standards for Mobile Home Parks and Subdivisions

- A. Anchoring. All manufactured homes and additions to manufactured homes shall be securely anchored to an adequately anchored foundation system to resist flotation, collapse or lateral movement by one of the following methods:
 - 1. By providing an anchoring system designed to withstand horizontal forces of twenty-five pounds per square foot and uplift forces of fifteen pounds per square foot;
 - 2. By providing over-the-top and frame ties to ground anchors. Specifically:
 - a. Over-the-top ties be provided at each of the four corners of the manufactured home, with two additional ties per side at intermediate locations, except that manufactured homes less than fifty feet long require only one additional tie per side;
 - b. Frame ties be provided at each corner of the home with five additional ties per side at intermediate points, except that manufactured homes less than fifty feet long require only four additional ties per side; and

- c. All components of the anchoring system be capable of carrying a force of 4,800 pounds.
- B. Mobile Home Parks and Mobile Home Subdivisions. The following standards are required for all new and replacement manufactured homes:
 - 1. Adequate surface drainage and access for a hauler shall be provided.
 - 2. All manufactured homes shall be placed on pads or lots elevated on compacted fill or pilings so that the bottom of the structural frame or the lowest point of any attached appliances, whichever is lower, is at or above regulatory flood elevation. If elevated on pilings:
 - a. The lots shall be large enough to permit steps;
 - b. The pilings shall be placed in stable soil no more than ten feet apart; and
 - c. Reinforcement shall be provided for pilings more than six feet above the ground level.
- C. No manufactured home shall be placed in a floodway, except in an existing manufactured home park or existing manufactured home subdivision.

Section 15-5-6 Floodways

Located within areas of special flood hazard established in section 15-3-2 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles and erosion potential, the following provisions apply:

- A. Prohibit encroachments, including fill, new construction, substantial improvements and other development unless certification by a registered professional engineer or architect is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.
- B. Prohibit the placement of any manufactured homes except in an existing manufactured home park or subdivision.
- C. All new construction and substantial improvements shall comply with all other applicable flood hazard reduction provisions of this article.

ARTICLE 15-6 VARIANCE PROCEDURE

- 15-6-1 Appeal Board
- 15-6-2 Conditions for Variances

Section 15-6-1 Appeal Board

- A. The Floodplain Board of Maricopa shall hear and decide appeals and requests for variances from the requirements of this chapter.
- B. The floodplain board shall hear and decide appeals when it is alleged there is an error in any requirement, decision or determination made by the floodplain administrator in the enforcement or administration of this chapter.
- C. In passing upon such applications, the floodplain board shall consider all technical evaluations, all relevant factors, standards specified in other sections of this chapter, and:
 - 1. The danger that materials may be swept onto other lands to the injury of others;
 - 2. The danger to life and property due to flooding or erosion damage;
 - 3. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
 - 4. The importance of the services provided by the proposed facility to the community;
 - 5. The necessity to the facility of a waterfront location, where applicable;
 - 6. The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
 - 7. The compatibility of the proposed use with existing and anticipated development;
 - 8. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
 - 9. The safety of access to the property in times of flood for ordinary and emergency vehicles;
 - 10. The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters expected at the site; and,
 - 11. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water system, and streets and bridges.
- D. Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing paragraphs 1-11 of subsection C of this section have been fully considered. As the lot size increases beyond one-half acre, the technical justification required for issuing the variance increases.
- E. Upon consideration of the factors of subsection C of this section and the purposes of this chapter, the floodplain board may attach such conditions to the granting of variances as it deems necessary to further the purposes of this chapter.
- F. The floodplain administrator shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request.

Section 15-6-2 Conditions for Variances

- A. Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this section.
- B. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
- C. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
- D. Variances shall only be issued upon:
 - 1. A showing of good and sufficient cause;
 - 2. A determination that failure to grant the variance would result in exceptional hardship to the applicant; and,
 - 3. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.
- E. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the regulatory flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation. Such notice will also state that the land upon which the variance is granted shall be ineligible for exchange of state land pursuant to the flood relocation and land exchange program provided by Title 26, Chapter 2, Article 2, Arizona Revised Statutes. A copy of the notice shall be recorded by the floodplain board in the office of the Pinal County Recorder and shall be recorded in a manner so that it appears in the chain of title of the affected parcel of land.